4 Fixes For Windows Audio Device Graph Isolation High CPU

October 30, 2021

It is impossible to enjoy any form of media without any music or sound. Sounds on your computers are managed by several system processes and powerful drivers. One such process is the Windows Audio Device Graph Isolation process (Audiodg.exe).

Though it is a useful process, this can use a lot of system resources without any warning and be a hindrance to other programs. This article will help you cool your PC down when the Windows Audio Device Graph Isolation process heats it up.

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What does the Windows Audio Device Graph Isolation Process do on your Windows 10 PC?

The Windows Audio Device Graph Isolation (AudioDG.exe) process is the key Windows feature that functions as an audio engine. This process manages tasks like digital signal processing, most importantly, managing the Windows advanced audio enhancements.

In simple words, this is the engine that is responsible for third-party apps to create audio output through speakers or headphones. Some sound devices can change the Windows Audio Device Graph Isolation process with a very similar digital signal processor developed by the manufacturer. Such third-party injected processes can be found in the task manager in a different section of the Processes tab.

This process is the Windows element that lets users add special sound effects, like adding reverb, bass boost, simulating echo, and more to the audio with the help of a third-party app for audio or video editing.

The AudioDG.exe does not interfere with the audio output of the computer when offering support to the audio effects. It is an independent process and so it is dedicated to providing audio effects. As a result, the AudioDG.exe is very stable, under normal conditions.

The word ‘isolation’ is attached to its name as the Windows Audio Device Graph Isolation process separates and processes the digital signals to a different system service, in order to avoid crashes.

Another AudioDG.exe element is that this process lets you both, enable and disable the audio enhancement feature on any system configuration. It doesn’t have to be a system dedicated to working with sound or a PC build with high specifications. This option is not a choice offered by most sound system companies.

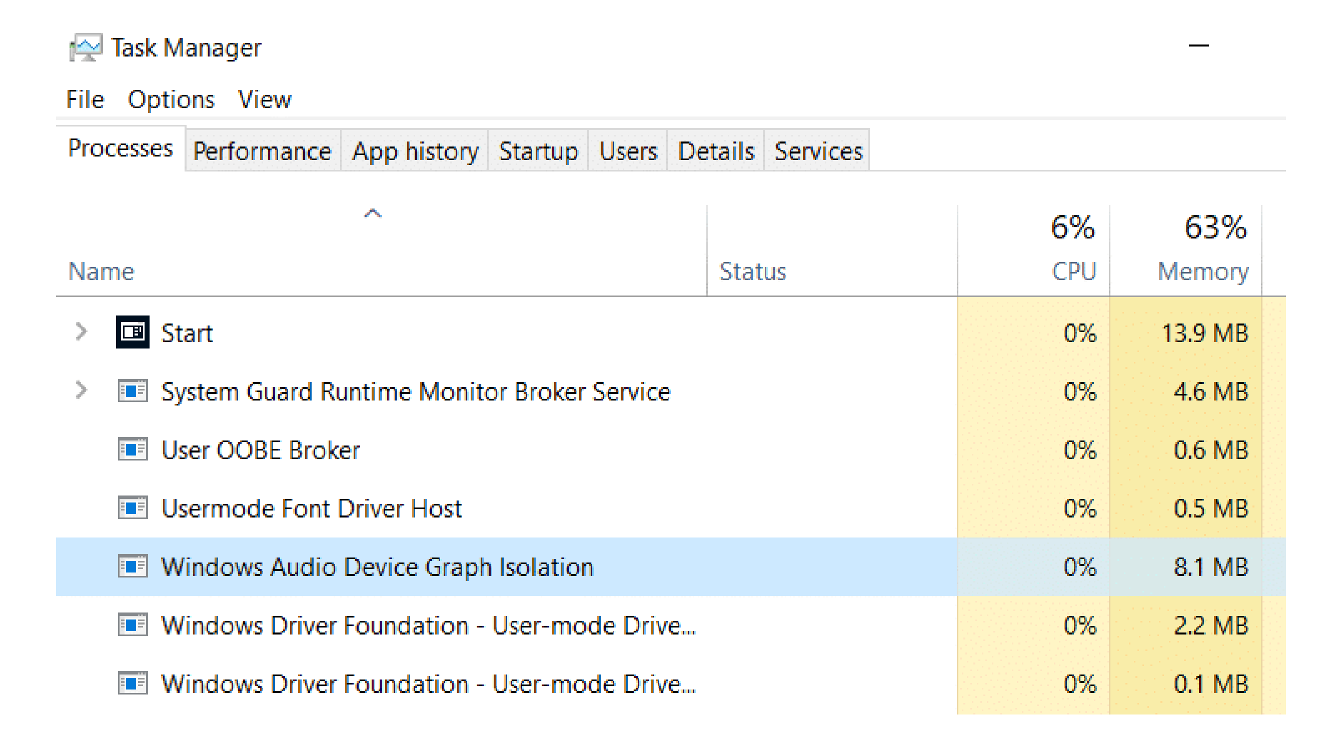
Why does the Windows Audio Device Graph Isolation Process use a lot of CPU memory?

Like a lot of other system processes that can spike your system resources usage up to an unusual percentage, the Windows Audio Device Graph Isolation is capable of the same issue.

See also How to Check VRAM on Windows 10

This primary audio engine takes up RAM only when the sound effects are being put to use on your computer. Once it is complete, it should take up only a tiny amount of RAM or none at all.

We mentioned earlier that sound equipment developers create a processor to exchange the Windows Audio Device Graph Isolation process. If these processors are not developed properly, it can cause the CPU usage to touch the roof when this process begins to run on your computer. This will cause a Blue Screen of Death (BSoD) on your computer, without any warning.



However, this issue can be settled easily as this process does not have a connection with most of the Windows processes and features. This could also be one of the reasons why the developers of this process decided to isolate it from contact with other elements of the Windows PC.

Is the Windows Audio Device Graph Isolation Process a virus?

There is no definite answer to this question as the Windows Audio Device Graph Isolation process can either be the main Windows audio service or a virus that goes by the same title.

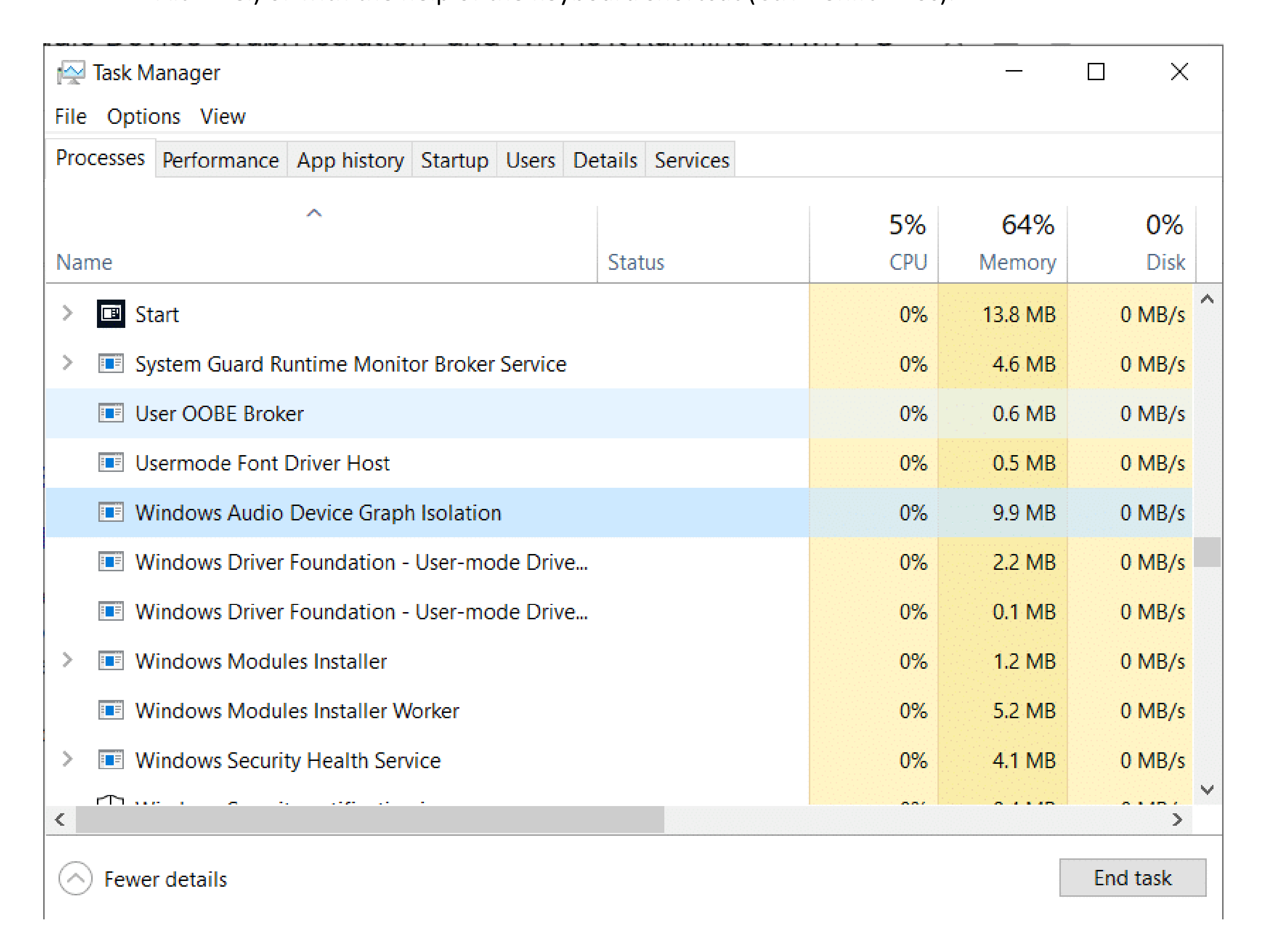
The Windows Audio Device Graph Isolation process is a legit Windows audio service. However, like most other Windows services, this service can also be used as a cover by a virus or any other form of malware.
A virus can replace this service and there will not be any change in the appearance or performance of this process. Eventually, this malware will start taking over your system. So it has to be removed before it can cause damage to your Windows computer.

Testing the legitimacy of the Windows Audio Device Graph Isolation Process on a Windows 10 PC

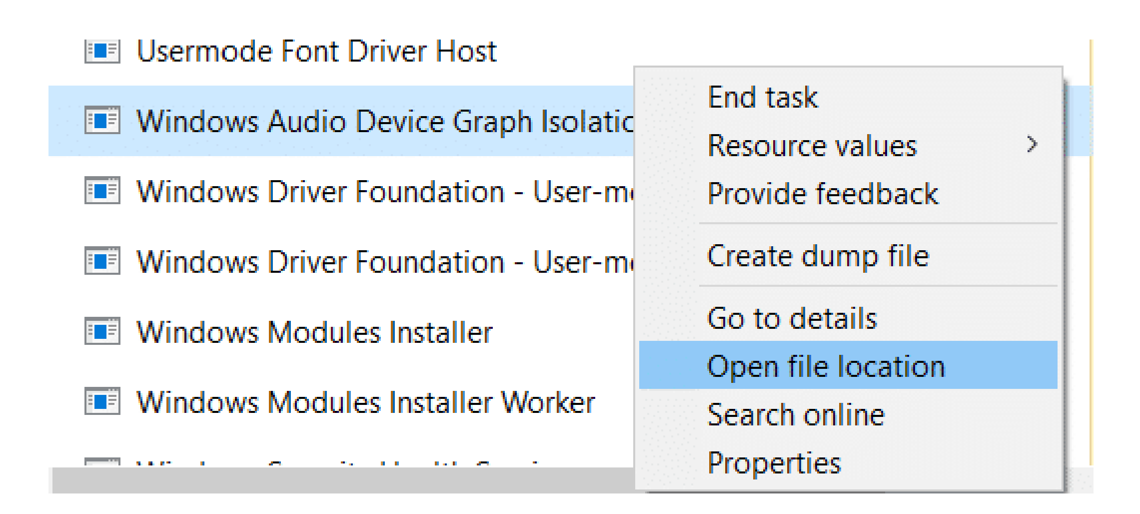
There is one procedure for Windows users to find out if the Windows Audio Device Graph Isolation process is a virus or a safe system process. This involves you checking the directory of the AudioDG.exe.

Here's how you can check the integrity of the Windows Audio Device Graph Isolation process.

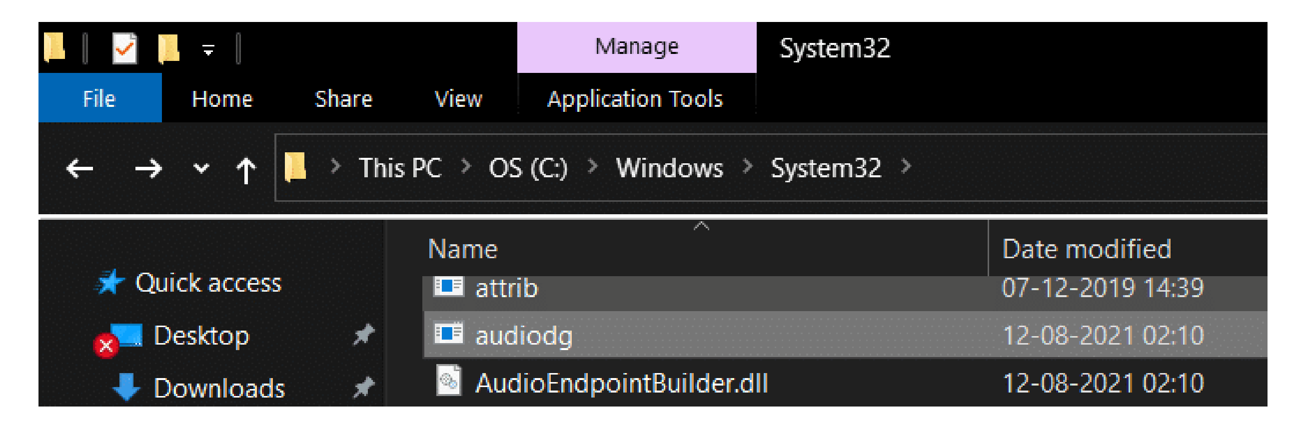
1. Open the **Task Manager** window on your computer, through the Task Termination screen (Ctrl + Alt + Del) or with the help of the keyboard shortcut (Ctrl + Shift + Esc).



2. Go into the Processes tab and from the long list of the running process, locate the **Windows Audio Device Graph Isolation** task.
3. Right-click on the process and select **Open File Location**.



Now, the file explorer should open and the directory on the address bar should be **C:\Windows\System32.**



This is the location where are system files and processes are stored. If you are taken to a different directory, this means that you are dealing with a viral file. This has to be removed as soon as possible.

Is it possible to disable this Windows Operating System process?

Yes, it is possible to disable the Windows Audio Device Graph Isolation process. However, this process should be disabled under no circumstances. This will not affect the functioning of the computer but there will be no audio output from your computer until the Windows Audio Device Graph Isolation process can be seen on your taskbar again.

If you have disabled this process by mistake, simply restart your PC and check the Task Manager. If the Windows Audio Device Graph Isolation process is up and running, you will not have any audio issues.

See also Miracast For Windows: Setup & Troubleshooting Guide

Solutions for the high CPU usage issue caused by Windows Audio Device Graph Isolation Process in Windows 10

There are four different steps to reduce the high CPU usage issue caused by the Windows Audio Device Graph Isolation (AudioDG.exe).

1. **Run a complete system scan**
2. **Disable the system sounds**
3. **Update the Audio drivers on your computer**

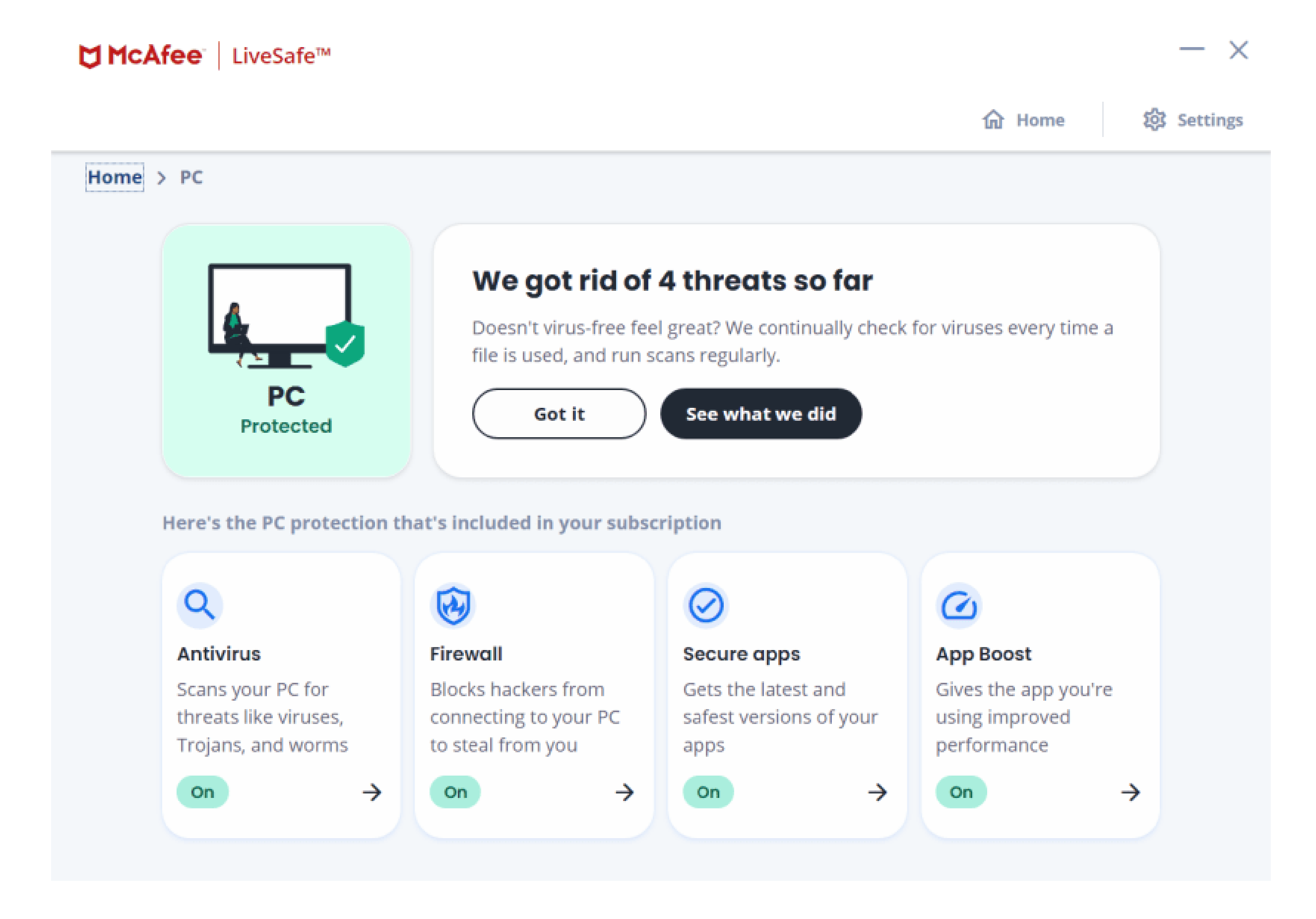
4. **Remove the Skype application from your PC**

Fixing the Windows Audio Device Graph Isolation Process High CPU Usage Issue

The following instructions will help you fix the Windows Audio Device Graph Isolation High CPU usage issue on your Windows 10 computer.

Run a complete system scan

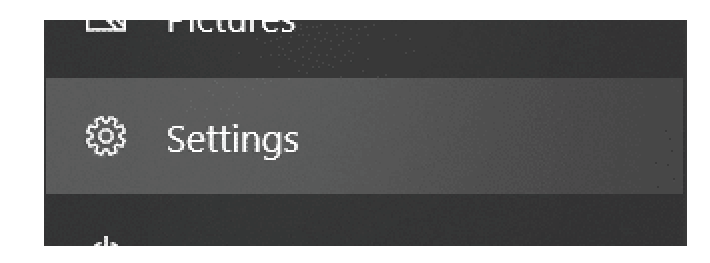
If the Windows Audio Device Graph Isolation (AudioDG.exe) is located in a different place and not the System32 folder. You will have to remove it, immediately. The best way to get rid of a suspicious file is to use an antivirus. If you have a third-party antivirus program, it might run regular scans of your computer, which will remove this file without you having to do it, manually.



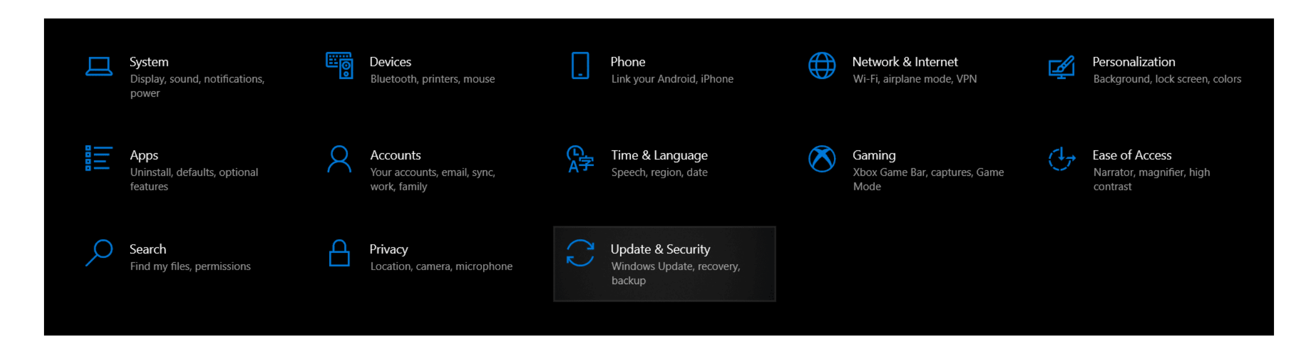
If you do not own an antivirus program, we recommend that you purchase a subscription to good antivirus software. In the interim, you can use Windows Defender to scan your Windows computer.

Follow these steps to remove the fake standard Windows audio service by scanning your computer with the Windows Defender.

1. Open the **Windows Settings** through the Start menu (gear icon) or by pressing Windows and I keys together.



2. Go into the **Update and Security** settings tile and look for the Windows Security option on the left pane.



3. Click on the **Windows Security** tab and go into the **Virus and Threat protection** option.



4. Check the **Full Scan** radio button and select **Scan now** to check your system for threats and remove them.

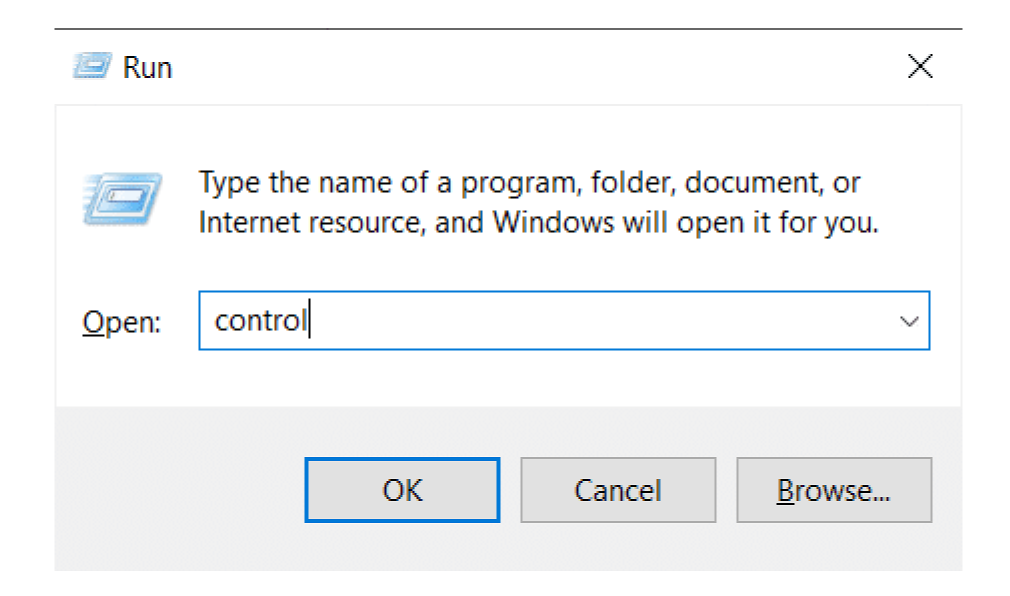
This process will take some time. Some files may get quarantined or removed by this scan. You will have to exempt these files before you start the scan so that they are not detected by the scan.

Disable the system sounds

Another solution to this specific high CPU usage is to turn off all the advanced audio enhancement effects on your system since these features are handled by the Windows Audio Device Graph Isolation process. You may use the following steps only when you are absolutely certain that you will not run sound effects like these on your computer.

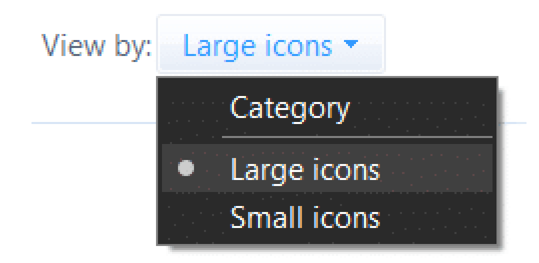
Use this method to disable sound effects on the [Windows 10 Operating System.](#)

1. Launch the **Control Panel** on your system.

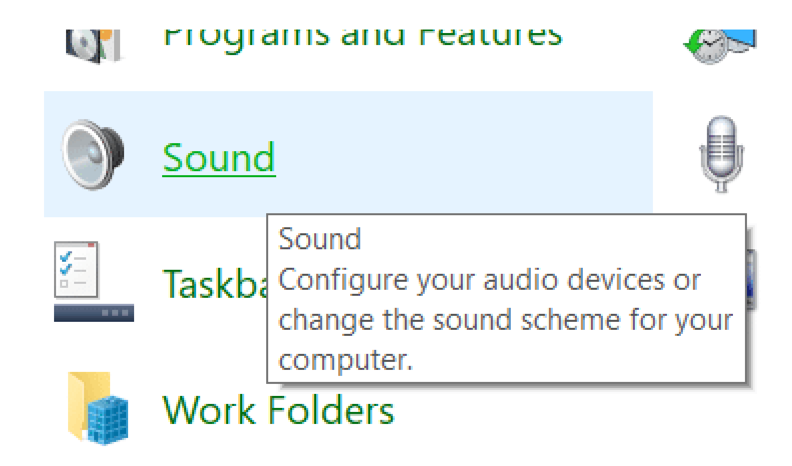


You can use the Start menu, search bar, or control command in the Run tool to open this window on Windows 10.

2. If the tools are generally categorized, bring down the **View mode drop-down menu** and choose the **Large icons** options. All the settings will be separated on the Control Panel main page.



3. Open the **Sound** control panel and you will see a window containing all the playback devices on your computer.



You can also right-click on the speaker icon and select **Playback devices** from the context menu to open the same window.

4. Go into the **Playback** tab, right-click on a playback device and choose **Properties** from the context menu.

Sound

Playback | Recording | Sounds | Communications

Select a playback device below to modify its settings:

AI Noise-cancelling Output
ASUS Utility
Ready

System Virtual Line
ASUS Utility
Disabled

NVIDIA Output
NVIDIA High Definition Audio
Not plugged in

Speakers
Realtek(R) Audi
Default Device

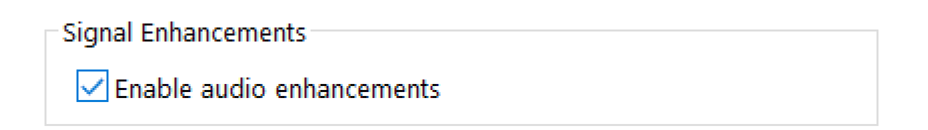
Headphones
Realtek(R) Audi
Not plugged in

Configure Speakers
Test
Disable
Show Disabled Devices
Show Disconnected Devices
About Software MIDI Synthesizer
Properties

Configure

OK | Cancel | Apply

5. In the Speaker Properties window, go into the **Enhancements** tab and remove the check from the **Enable audio enhancements** checkbox.



6. Click on the **Apply** button to save your changes.

See also What are 'Blue Arrows' on Icons and How to Get Rid of them?

You will not be able to use the advanced audio effects on your computer unless they are enabled again.

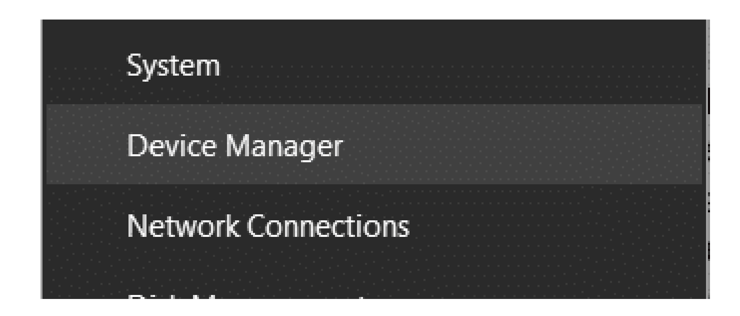
Update the Audio drivers on your computer

Audio drivers are one of the reasons we hear audio on a PC. If these drivers are outdated or corrupt, you may not be able to hear sound. This combined with the Windows Audio Device Graph Isolation High CPU usage issue can make it really hard for users to enjoy a movie or a game. Therefore, you will have to update the sound drivers on your computer.

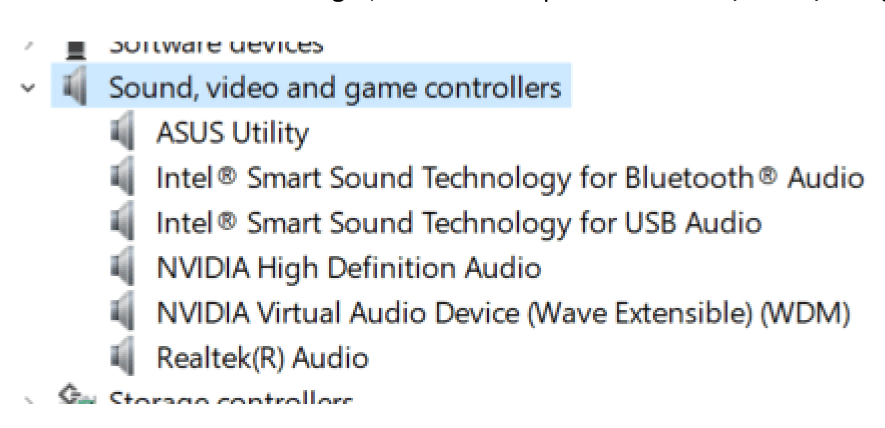
To update an audio driver, you can download your sound device's driver from the manufacturer's website.

If you wish to do it manually, follow the below steps.

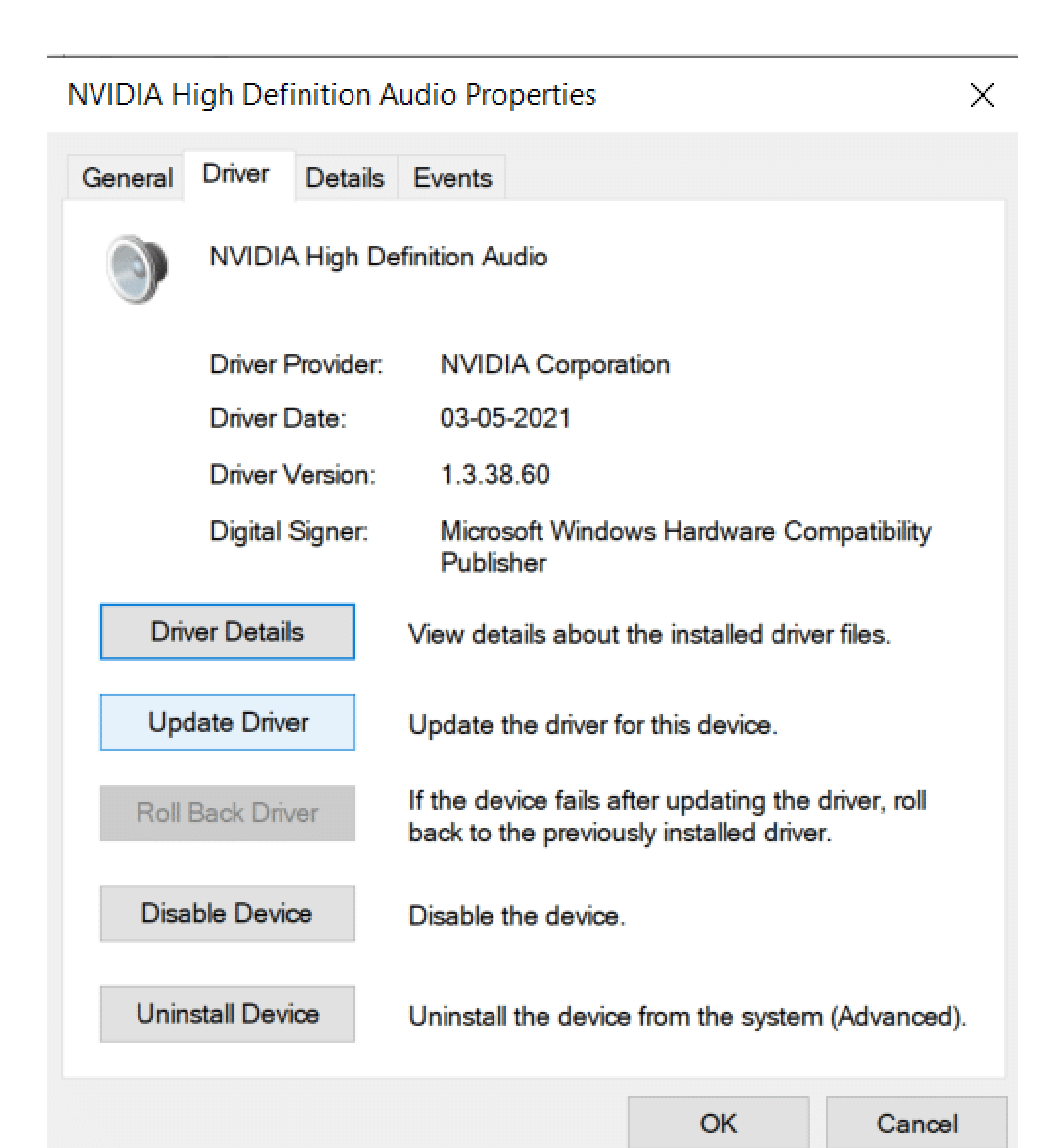
1. Bring up the **Device Manager** window through the search bar, Run tool (Windows + R key and execute the devmgmt.msc command), or the Quick Link menu (Windows key + X).



2. In the Device Manager, locate and expand the **Sound, video, and game controllers** category.



3. Double-click on the audio device to open the audio device properties window.
4. Here, go into the **Drivers** tab and click on the **Update driver** button.



5. In the Audio drivers update wizard, choose the **Search automatically for drivers option** to find and download the latest version of the sound driver software.

Update Drivers - NVIDIA High Definition Audio

How do you want to search for drivers?

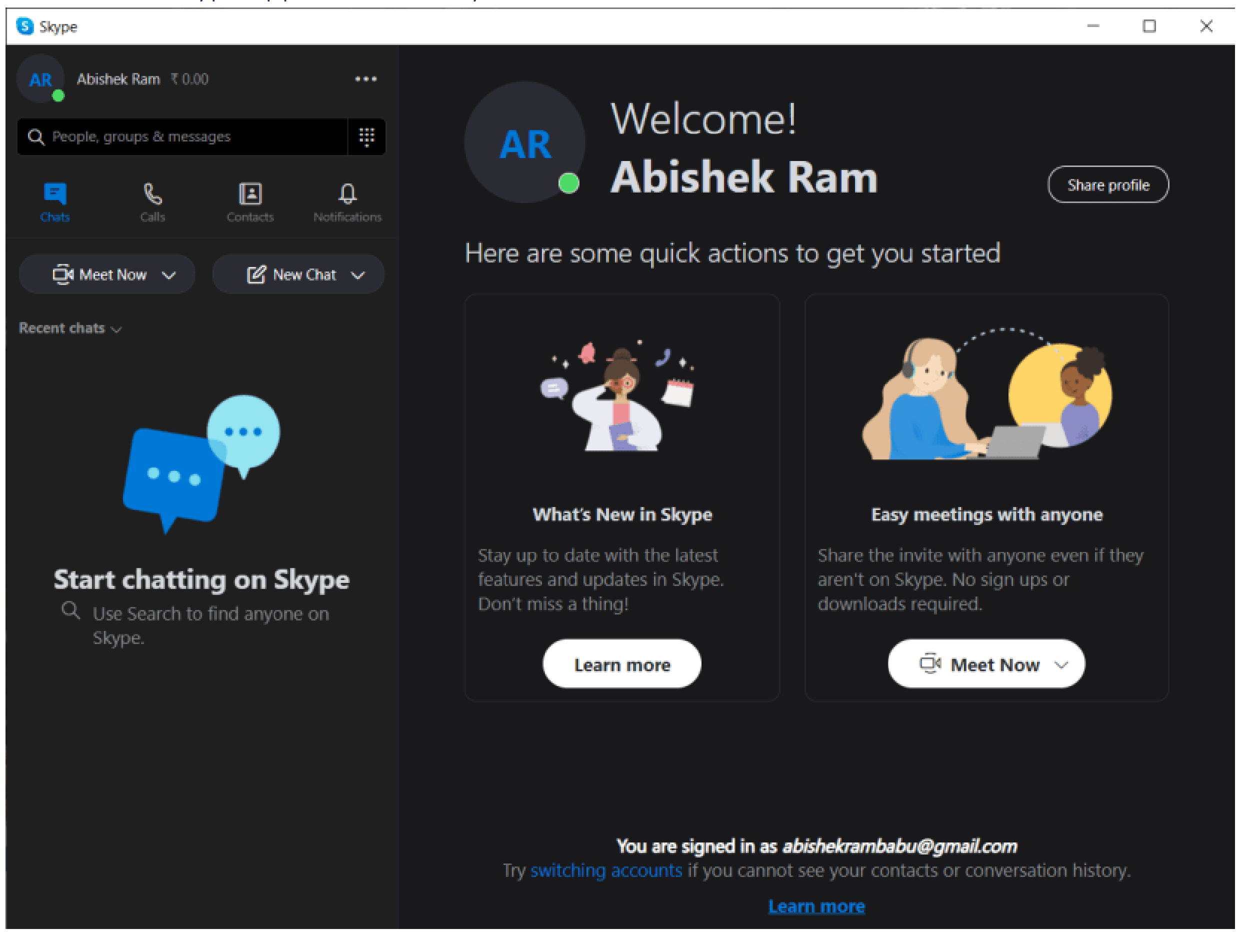
→ Search automatically for drivers
Windows will search your computer for the best available driver and install it on your device.

→ Browse my computer for drivers
Locate and install a driver manually.

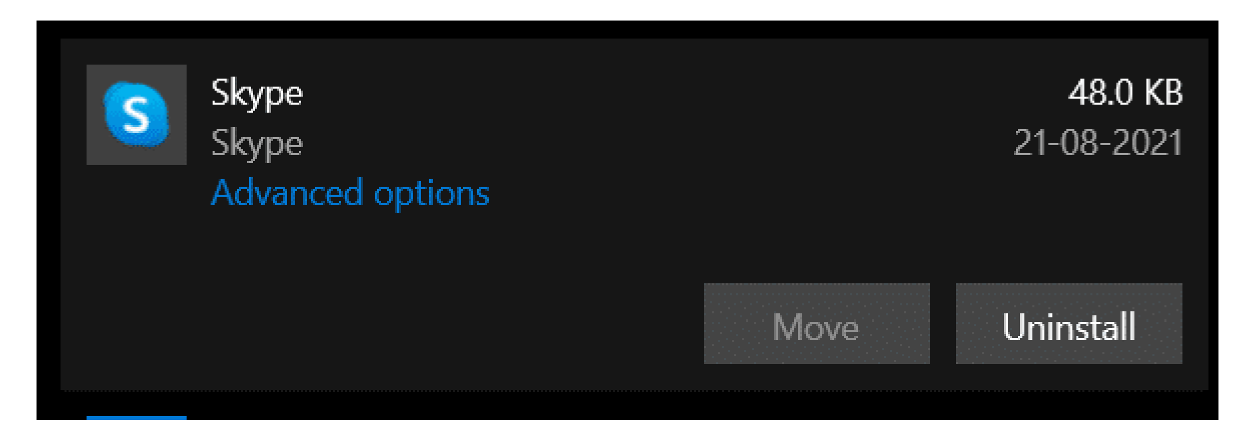
6. Restart your computer to install the updated driver on your computer.

After finishing this operation, check the system resources in your task manager.

Remove the Skype application from your PC



The Skype video-call application can also cause this problem for reasons unknown. You can try uninstalling this application and see if this will fix the Windows Audio Device Graph Isolation High CPU usage issue.



If you wish to reinstall Skype, you can download the setup from the Skype website and install it again.

These are the procedures that will save your CPU memory from burning out because of the Windows Audio Device Graph Isolation process. By now, you shouldn't be having any issues regarding the audio enhancements. Happy Browsing!

FAQs

What is Windows Audio Device Graph Isolation do?

The Windows Audio Device Graph Isolation (AudioDG.exe) is a digital signal processing service that is responsible for enhancing the sound effects produced by your Windows PC.

Without this process, third-party apps will not be able to create audio outputs on your computer.

How do I get rid of Windows Audio Device Graph Isolation?

To get rid of the Windows Audio Device Graph Isolation BSoD, you can run a full system scan, turn off sound enhancements, download the latest versions of the sound drivers, and you can also try uninstalling Skype on your computer.

Why is Windows Audio Graph Isolation high memory?

The Windows Audio Device Graph Isolation process takes up a lot of memory when the original process is replaced by a similar one developed by sound equipment manufacturers to enhance audio quality and sound effects.

Is Audiodg EXE necessary?

The AudioDG.exe is a Windows system process that is responsible for the sound outputs produced by the computer. This is a quite useful system process that is built-in with the Windows OS.